

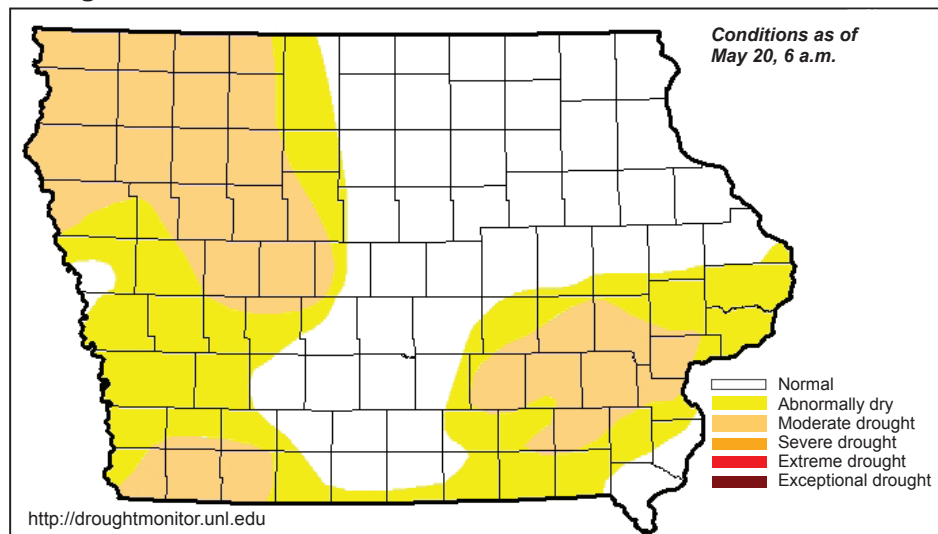
WATER SUMMARY UPDATE

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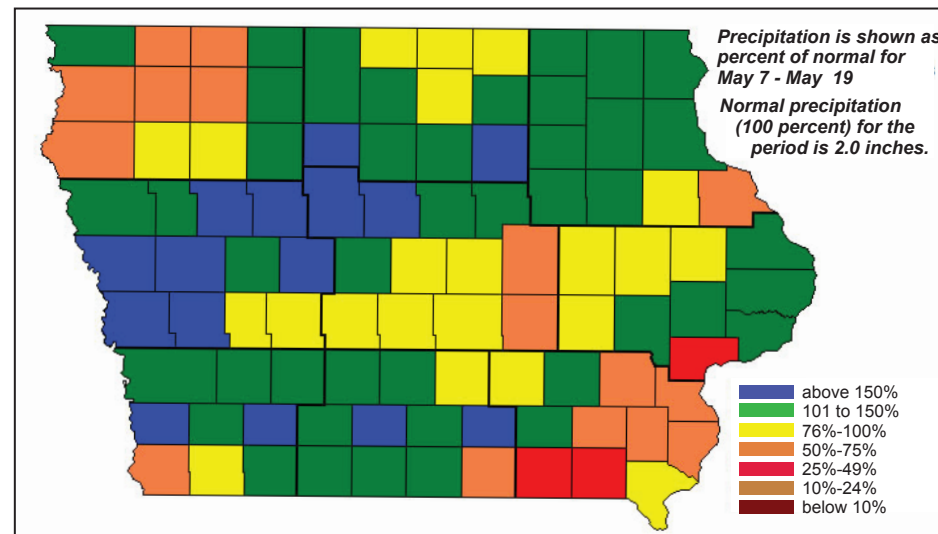
Drought Monitor

National Drought Mitigation Center and partners



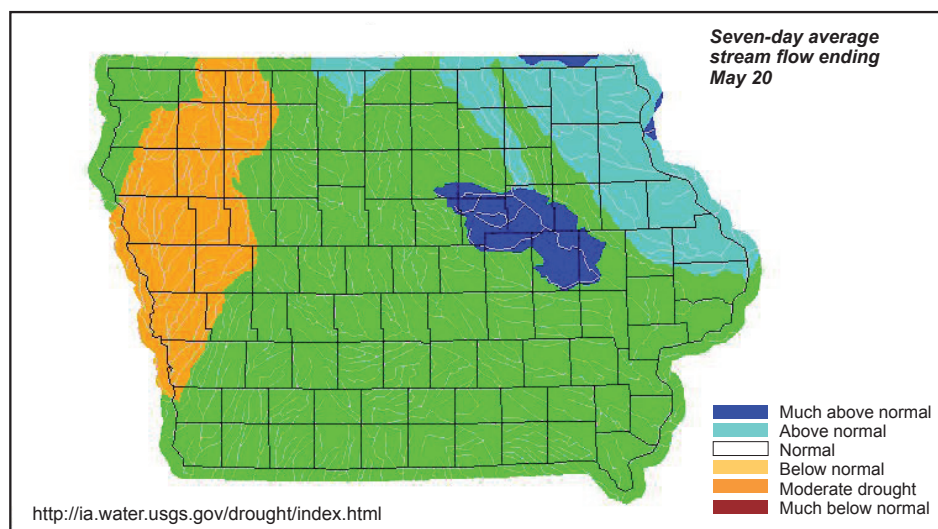
Precipitation

State Climatologist



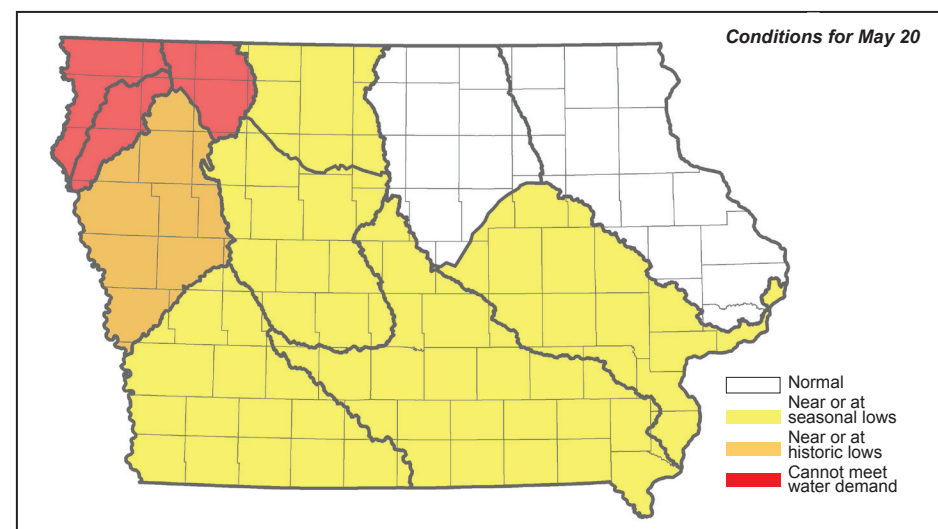
Stream Flow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

Conditions in Iowa continue to improve, with the Drought Monitor now showing 71 percent of the state free of drought, or only abnormally dry. The 2.1 inches of rain that Iowa has received over the past two weeks is above the average, and average streamflow across the state continues to be slightly above average, with only one small watershed in northwest Iowa with below normal flow. Northwest Iowa continues to be an area of concern, as they have not seen their share of rain recently. Water operators are worried about what might happen when the demand for water increases with the onset of hot weather.

Drought Monitor

Most of the state continues to improve, but for the first time in several months there is an area of worsening conditions. The extreme northwest 4 percent of the state was changed from D0 to D1 – Moderate Drought, in this week's Drought Monitor. In the eastern and central areas of the state, however, conditions continue to improve slowly. Nearly 60 percent of the state has no drought, or is only abnormally dry. The current pattern of regular rainfall continues to help the overall situation.

Precipitation

Statewide average precipitation was just greater than 2.1 inches, compared to an average of about 2 inches. Rain on May 11 and 12 contributed greatly to Iowa's wettest week in nearly a year. Rainfall amounts have highly varied over the past two weeks, ranging from 0.6 inches at Bloomfield to 4.3 inches at Osceola and 4.2 inches at the Council Bluffs airport. Temperatures have mostly been below normal during the period, including a freeze that occurred over most of the western one-third of the state on the morning of May 16. Lowest temperatures fell to 24 degrees at Spencer and 25 at Cherokee and Le Mars. On the other extreme, on May 7 the temperature reached 97 degrees in Shenandoah, Sidney and Clarinda. Month-to-date and year-to-date state average precipitation in 2014 have both been very close to the long-term normal.

The May 19 Iowa Crops and Weather report released by the USDA National Agricultural Statistical Service indicates that topsoil moisture levels are short or very short for 10 percent of the state, adequate for 78 percent and surplus for 12 percent. Subsoil moisture levels are dryer, with 32 percent rated as short or very short.

Shallow Groundwater

Shallow groundwater levels in parts of northwest Iowa continue to be near record lows, especially the alluvial aquifers along the Rock, Floyd, Ocheyedan, and Upper Little Sioux rivers. The lower groundwater levels are the result of both dry conditions and increased water usage. Substantial rainfall across much of Iowa has allowed shallow groundwater levels to recover somewhat over the last two weeks. Shallow groundwater levels have risen approximately 2.0 feet in southwest Iowa, 1.2 feet in south central Iowa, 0.5 feet in east central Iowa, 0.1 feet in southeast Iowa, and 0.8 feet in parts of central Iowa.

Stream Flow

The streamflow map shows the average flow over the past seven days compared to historical streamflow levels. Streamflow conditions were normal or higher for the majority of the state. The lowest streamflow conditions across the state are in the Little Sioux, Floyd, Soldier, and Boyer River Basins in the western part of the state. Streamflow conditions across the rest of the state are at normal or above normal conditions. The highest streamflow conditions are in the northeast portion of the state with above normal conditions, and a portion of the Cedar River Basin is in the much above normal condition. Streamflow conditions across the state have improved since the last water summary update.

Notable Events This Period

Stream Flow Index. The National Weather Service's Climate Forecast System (CFS), a model that has shown reliability for a one-month predictive period, predicts at this time the for precipitation through the end of June to be near to above normal while the temperature looks to be near to below normal.

DNR Field staff have reported that:

- Many of the lakes in NW Iowa are abnormally low for this time of year
- The Little Sioux and the West Fork of the Des Moines Rivers look like they usually do in the late fall, which is quite different from what they are seeing for lake and river levels in north central Iowa.
- Northwest Iowa continues to be very dry. Small streams are not flowing and tile lines are not running in many areas.
- Some crop irrigation is taking place this week in Northwest Iowa.

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